



**Supplementary Figure S3.** Validation of the expression levels of *HvPR1* gene by qRT-PCR using *HvActin* as the reference gene. Third leaves of the wNPR1-OE and HvNPR1-Kd barley transgenic lines and wild-type plants were infiltrated with water (control) or *Pseudomonas syringae* pv. *tomato* DC3000. Samples for qRT-PCR assays were collected from the leaf region adjacent to the infection 48 hours after inoculation, after a cell death phenotype observed. The transcript levels are expressed relative to those of the endogenous control *HvActin* using the  $2^{-\Delta CT}$  method. Two independent transgenic lines for each of the wNPR1-OE and HvNPR1-Kd were used. Each experiment, consisting of 4-11 biological replicates, was considered as a block. Calculations of the mean and standard error were performed using Microsoft Excel software. Data were transformed to restore normality, and general linearized model (GLM) ANOVA (\*  $P < 0.05$ ) was conducted using SAS software version 9.4.